

and 1b attached hereto.

REMARKS

Applicants have enclosed corrected informal drawings of Figures 1a and 1b. Applicants have also enclosed hand amended pages showing the corrections for the Examiner's convenience. The hand amended pages are captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE". Applicants will file formal drawings of all figures at a later date.

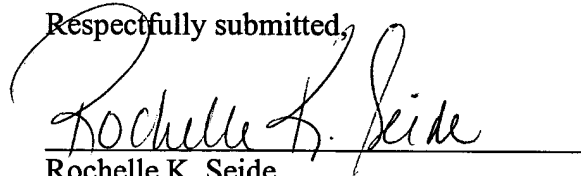
In the Wild Boar sequence in the original version of Figure 1a, two blocks of ten nucleotides were inadvertently swapped. Thus, nucleotide numbers 68-77 and 78-87 appeared in the wrong order. Amendment of Figure 1a to correct this defect is supported by the specification as originally filed at page 68, lines 28-30.

In the original version of Figure 1b, the second amino acid in the Wild Boar sequence was inadvertently identified as "N", i.e. asparagine. The specification as originally filed indicates that Figure 1b shows the "derived amino acid sequence ... of the porcine aMSH-R gene" at page 25, lines 2-3. The original paper sequence listing filed concurrently with the original specification indicated that the codon corresponding to the amino acid at position two is GAC which encodes aspartic acid (D), not asparagine. *See e.g.* Seq ID No. 37, positions 162-164.

These amendments to the figures are fully supported by the application as filed and do not constitute new matter. These amendments bring Figures 1a and 1b into conformity with the Substitute Sequence Listing filed on June 1, 2001.

Applicants do not believe any fee is due with this submission. However, please charge any fee required for this filing overpayment to Deposit Account No. 02-4377. Two copies of this paper are enclosed.

Respectfully submitted,

A handwritten signature in cursive script, reading "Rochelle K. Seide", written over a horizontal line.

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Enclosures



VERSION WITH MARKINGS TO SHOW CHANGES MADE

Wildboar	TGC	GGC	TCC	AGG	GTG	TCC	AGC	CTC	TGC	TTC	CTG	GGC	GCC	ATC	GCC	GTG	GAC	431
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Wildboar	CGC	TAC	GTG	TCC	ATC	TTC	TAC	GCG	CTG	CGC	TAC	CAC	AGC	ATC	GTG	ACG	CTG	483
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Wildboar	CCC	CGC	GCG	GGG	CGG	GCT	ATC	GCG	GCG	ATC	TGG	GCG	GGC	AGC	GTG	CTC	TCC	534
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Duroc	...	...	..T.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Wildboar	AGC	ACC	CTC	TTC	ATC	GCC	TAC	TAC	CAC	CAC	ACG	GCC	GTG	CTG	CTG	GGC	CTC	585
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Wildboar	GTC	AGC	TTC	TTC	GTG	GCC	ATG	CTG	GCG	CTC	ATG	GCG	GTA	CTG	TAC	GTG	CAC	636
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Wildboar	ATG	CTG	GCC	CGG	GCC	TGC	CAG	CAC	GCG	CGG	CAC	ATC	GCC	CGG	CTC	CAC	AAG	687
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Wildboar	ACG	CAG	CAC	CCC	ACC	CGC	CAG	GGC	TGC	GGC	CTC	AAG	GGC	GCG	GCC	ACC	CTC	738
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	..A	...	...	...	
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

FIG. 1 CONT'D

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Wildboar	ACC ATC CTG CTG GGC GTC TTC CTC CTC TGC TGG GCA CCC TTC TTC CTG CAC	789
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	

Wildboar	CTC TCC CTC GTC GTC CTC TGC CCC CAG CAC CCC ACC TGC GGC TGC GTC TTC	840
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	

Wildboar	AAG AAC GTC AAC CTC TTT CTG GCC CTC GTC ATC TGC AAC TCC ATC	885
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	

b. Amino acid sequence

Wildboar	<sup>D</sup> ?P <sup>D</sup> GLFLSLG LVSLVENVLV VAAIAKRNRL HSPMYFVCC LAVSDILVSV SNVLETA <sup>99</sup> VLL
Meishan	.....M.....P
Largewhite	.....
Hampshire	.....
Duroc	.....

Wildboar	LLEAGALAAQ AAVVOQLDNV MDVLICGSMV SSLCFLGAIA VDRYVSIFYA LRYHSIVTLP	159
Meishan	.....	
Largewhite	.....N.....	
Hampshire	.....N.....	
Duroc	.....	

Wildboar	RAGRAIAAIW AGSVLSSTLF IAYYHHTAVL LGLVSFFVAM LALMAVLYVH MLARACQHGR	219
Meishan	.....	
Largewhite	.....	
Hampshire	.....	
Duroc	.....V.....	

Wildboar	HIARLHKTOH PTRQGCGCLKG AATLTILLGV FLLCWAPFFL HLSLVVLCPO HPTCGCVFKN	279
Meishan	.....	
Largewhite	.....	
Hampshire	.....	
Duroc	.....T.....	

Wildboar	VNLFLALVIC NSI
Meishan	.....
Largewhite	.....
Hampshire	.....
Duroc	.....

Wildboar	TGC GGC TCC ATG GTG TCC AGC CTC TGC TTC CTG GGC GCC ATC GGC GTG GAC	431
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	CGC TAC GTG TCC ATC TTC TAC GCG CTG CCG TAC CAC AGC ATC GTG ACG CTG	483
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	CCC CGC GCG GGG CCG GGT ATC GCG GCG ATC TGG GCG GGC AGC GTG CTC TCC	534
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	... T ...	
Wildboar	AGC ACC CTC TTC ATC GCC TAC TAC CAC CAC ACG GCC GTC CTG CTG GGC CTC	585
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	GTC AGC TTC TTC GTG GCC ATG CTG CCG CTC ATG GCG GTA CTG TAC GTC CAC	636
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	ATG CTG GCC CCG GCC TGC CAG CAC GGC CCG CAC ATC GCC CCG CTC CAC AAG	687
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	ACG CAG CAC CCC ACC CCG CAG GGC TGC GGC CTC AAG GGC GCG GCC ACC CTC	738
Meishan	...	
Pietrain	... A ...	
Largewhite	...	
Hampshire	...	
Duroc	... A ...	

FIG. 1 CONT'D

Wildboar	ACC ATC CTG CTG GGC GTC TTC CTC CTC TGC TGG GCA CCC TTC TTC CTG CAC	789
Meishan	.....	
Pietrain	.....	
Largewhite	.....	
Hampshire	.....	
Duroc	.....	

Wildboar	CTC TCC CTC GTC GTC CTC TGC CCC CAG CAC CCC ACC TGC GGC TGC GTC TTC	840
Meishan	.....	
Pietrain	.....	
Largewhite	.....	
Hampshire	.....	
Duroc	.....	

Wildboar	AAG AAC GTC AAC CTC TTT CTG GCC CTC GTC ATC TGC AAC TCC ATC	885
Meishan	.....	
Pietrain	.....	
Largewhite	.....	
Hampshire	.....	
Duroc	.....	

**b. Amino acid sequence**

Wildboar	?PDGLFLSLG LVSLVENVLV VAAIAKNRNL HSPMYFVCC LAVSDILVSV ENVLETAVLL	99
Meishan	.....	
Largewhite	.....	M.....P
Hampshire	.....	
Duroc	.....	

Wildboar	LLEAGALAAQ AAVVQQLDNV MOVLCGSMV SSLCFLGAIA VDRYVSIFYA LRYHSIVTLP	159
Meishan	.....	
Largewhite	.....	N.....
Hampshire	.....	N.....
Duroc	.....	

Wildboar	RAGRAIAAIW AGSVLSSTLF IAYYHHTAVL LGLVSFFVAM LALMAVLYVH MLARACQHGR	219
Meishan	.....	
Largewhite	.....	
Hampshire	.....	
Duroc	V.....	

Wildboar	HIARLHKTOH PTRQCGCLKG AATLTILLGV FILCWAPFFL HLSLVVLCPO HPTCCGVFKN	279
Meishan	.....	
Largewhite	.....	
Hampshire	.....	
Duroc	.....	T.....

Wildboar	VNLFLALVIC NSI
Meishan	.....
Largewhite	.....
Hampshire	.....
Duroc	.....

FIG. 1 CON'T

# FIG. 1

## a: Nucleotide sequence

Wild Boar	CTCCCTGCTCCCTGCTCCCTGGCGGGACG	1	ATG CCT GTG CTT GGC CCG GAG AGG AGG	27
Meishan	.....			
Pietrain	.....			
Wild Boar	CTG CTG GCT TCC CTC AGC TCC GCG CCC CCA GCC GCC CCC		CGC CTC GGG	75
Meishan	.....			
Pietrain	.....		CC	
Wild Boar	CTG GCC GCC AAC CAG ACC AAC CAG ACG GGC CCC CAG TGC CTG GAG GTG		TCC	126
Meishan	.....			
Pietrain	.....			
Wildboar	ATT CCC GAC GGG CTC TTC CTC AGC CTG GGG CTG GTG AGC CTC GTG GAC		AAC	177
Meishan	.....			
Pietrain	.....			
Largewhite	.....			
Hampshire	.....			
Duroc	.....			
Wildboar	GTG CTG GTG GTG GCC GCC ATC GCC AAG AAC CGC AAC CTG CAC TCG CCC		ATG	228
Meishan	.....			
Pietrain	.....			
Largewhite	.....			
Hampshire	.....			
Duroc	.....			
Wildboar	TAC TAC TTC GTC TGC TGC CTG GCC GTG TCG GAC CTG CTG GTG AGC		CTG AGC	279
Meishan	.....			
Pietrain	.....			
Largewhite	.....			
Hampshire	.....			
Duroc	.....			
Wildboar	AAC GTG CTG GAG ACG GCC GTG CTG CTG CTG CTG GAG GCG GGC GCC		CTG GCC	329
Meishan	... A..			
Pietrain	.....		.C.	
Largewhite	.....			
Hampshire	.....			
Duroc	.....			
Wildboar	GCC CAG GCC GCC GTG GTG CAG CAG CTG GAC AAT GTC ATG GAC GTG		CTC ATC	380
Meishan	.....			
Pietrain	.....		.C.	
Largewhite	.....			
Hampshire	.....		A..	
Duroc	.....		A..	
	.....		A..	